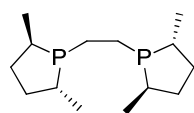
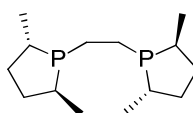




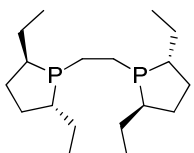
BPE™ Phospholane Ligands¹



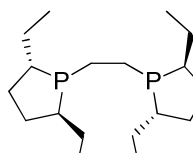
K15-0028
(R,R)-Me-BPE™, ≥97.0%
 (+)-1,2-Bis((2R,5R)-2,5-dimethylphospholano)ethane
 C₁₄H₂₈P₂; F.W: 258.32; [129648-07-3]



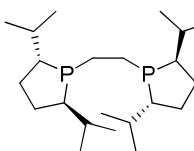
K15-0029
(S,S)-Me-BPE™, ≥97.0%
 (-)-1,2-Bis((2S,5S)-2,5-dimethylphospholano)ethane
 C₁₄H₂₈P₂; F.W: 258.32; [136779-26-5]



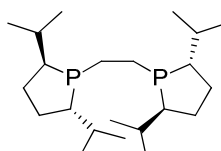
K15-0034
(R,R)-Et-BPE™, ≥97.0%
 (+)-1,2-Bis((2R,5R)-2,5-diethylphospholano)ethane
 C₁₈H₃₆P₂; F.W: 314.43; [136705-62-9]



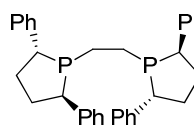
K15-0035
(S,S)-Et-BPE™, ≥97.0%
 (-)-1,2-Bis((2S,5S)-2,5-diethylphospholano)ethane
 C₁₈H₃₆P₂; F.W: 314.43; [136779-27-6]



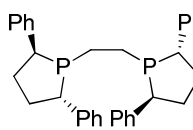
K15-0037
(R,R)-iPr-BPE™, ≥97.0%
 1,2-Bis((2R,5R)-2,5-diisopropylphospholano)ethane
 C₂₂H₄₄P₂; F.W: 370.53; [136705-63-0]



K15-0036
(S,S)-iPr-BPE™, ≥97.0%
 1,2-Bis((2S,5S)-2,5-diisopropylphospholano)ethane
 C₂₂H₄₄P₂; F.W: 370.53; [528854-34-4]

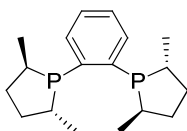


K15-0048
(R,R)-Ph-BPE™, ≥97.0%
 (-)-1,2-Bis((2R,5R)-2,5-diphenylphospholano)ethane
 C₃₄H₃₆P₂; F.W: 506.0; [528565-79-9]

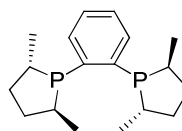


K15-0049
(S,S)-Ph-BPE™, ≥97.0%
 (+)-1,2-Bis((2S,5S)-2,5-diphenylphospholano)ethane
 C₃₄H₃₆P₂; F.W: 506.0; [824395-67-7]

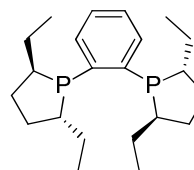
DuPhos™ Phospholane Ligands¹



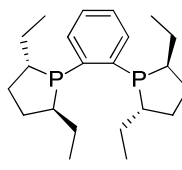
K15-0024
(R,R)-Me-DuPhos™, ≥97.0%
 (-)-1,2-Bis((2R,5R)-2,5-dimethylphospholano)benzene
 C₁₈H₂₈P₂; F.W: 306.3; [147253-67-6]



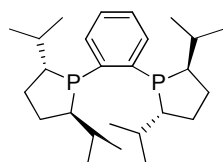
K15-0025
(S,S)-Me-DuPhos™, ≥97.0%
 (+)-1,2-Bis((2S,5S)-2,5-dimethylphospholano)benzene
 C₁₈H₂₈P₂; F.W: 306.3; [136735-95-0]



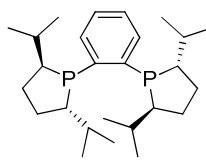
K15-0030
(R,R)-Et-DuPhos™, ≥97.0%
 (-)-1,2-Bis((2R,5R)-2,5-diethylphospholano)benzene
 C₂₂H₃₆P₂; F.W: 362.5; [136705-64-1]



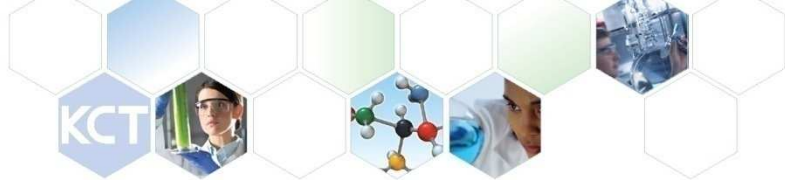
K15-0031
(S,S)-Et-DuPhos™, ≥97.0%
 (+)-1,2-Bis((2S,5S)-2,5-diethylphospholano)benzene
 C₂₂H₃₆P₂; F.W: 362.5; [136779-28-7]



K15-0033
(R,R)-iPr-DuPhos™, ≥97.0%
 (+)-1,2-Bis((2R,5R)-2,5-diisopropylphospholano)benzene
 C₂₆H₄₄P₂; F.W: 418.6; [136705-65-2]

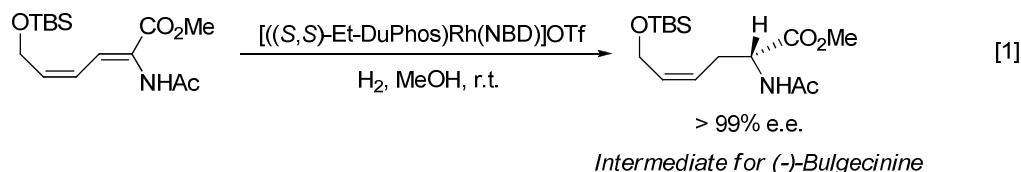


K15-0032
(S,S)-iPr-DuPhos™, ≥97.0%
 (-)-1,2-Bis((2S,5S)-2,5-diisopropylphospholano)benzene
 C₂₆H₄₄P₂; F.W: 418.6; [147253-69-8]

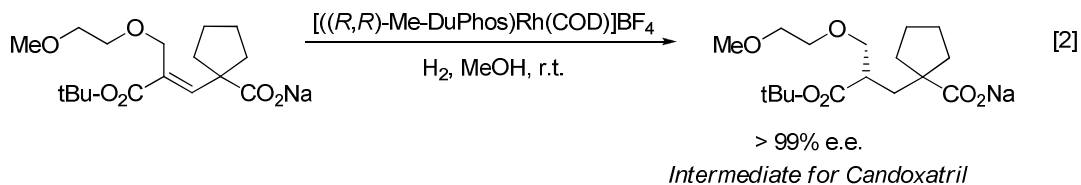


Since their discovery by Burk and co-workers in the early 1990's, chiral phospholanes have been amongst the most widely studied ligands in asymmetric catalysis. They exhibit high activity and enantioselectivity in a vast array of catalytic transformations such as the hydrogenation of unsaturated substrates,² reductive amidation,³ allylboration of ketones,⁴ dialkylzinc addition to β -nitro-alkenes⁵ and *N*-diphenylphosphinoylimines,⁶ hydroformylation of olefins⁷ and [4+1] cycloaddition.⁸ Some representative applications are depicted in reactions 1-4.

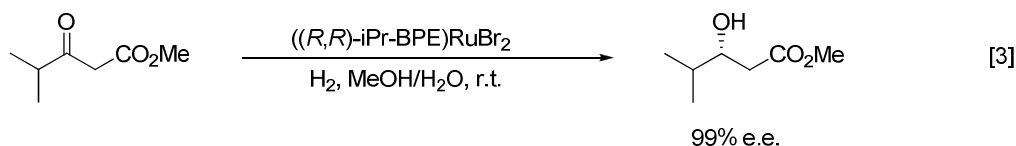
Asymmetric Hydrogenation of Enamides:⁹



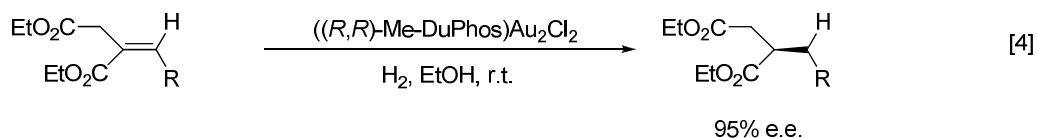
Asymmetric Hydrogenation of Alkenes:¹⁰



Enantioselective Hydrogenation of Ketones:¹⁰



Enantioselective Hydrogenation of Alkenes:¹¹



References

1. Sold under license from Dupont for research purposes.
2. Burk, M. J. *et al. J. Am. Chem. Soc.* **1992**, *114*, 6266.
3. Burk, M. J. *et al. J. Org. Chem.* **1998**, *63*, 6084.
4. Shibasaki, M. *et al. J. Am. Chem. Soc.* **2004**, *126*, 8910.
5. Côté, A. *et al. Org. Lett.* **2007**, *9*, 85.
6. Charette A.B. *et al. J. Am. Chem. Soc.* **2003**, *125*, 1692.
7. Axtell, A.T. *et al. Angew. Chem., Int. Ed. Eng.* **2005**, *44*, 5834.
8. Murakami, M. *et al. J. Am. Chem. Soc.* **1999**, *121*, 4130.
9. Burk, M. J. *et al. J. Am. Chem. Soc.* **1998**, *120*, 657.
10. Burk, M. J. *et al. J. Org. Chem.* **1999**, *64*, 3290.
11. Gonzales-Arellano, C. *et al. Chem. Commun.* **2005**, 3451.